

Claims:

1. A method of manufacturing a plastic container and associated closure, comprising the steps of:

extruding a parison within an open set of mold blocks which, when

closed, cooperate to form a container forming cavity and a

separate closure forming cavity;

closing said mold blocks on said parison such that said parison extends

through said container forming cavity and said closure forming

cavity of said mold blocks;

blow-molding said parison located in said container forming cavity to

form a container body;

separately blow molding a portion of said parison located in said

closure forming cavity to form at least a part of a closure; and

compression molding a remaining portion of said parison located in

said closure forming cavity to form a remaining part of said

closure integral with said blow molded part of said closure.

2. A method according to claim 1, wherein said blow molding of said container body, said blow molding of said part of said closure, and said compression molding of said remaining part of said closure occur substantially simultaneously.

3. A method according to claim 2, wherein said set of mold blocks are a pair of mold halves and wherein said container forming cavity and said closure forming cavity formed by said mold halves are spaced apart.

4. A method according to claim 3, wherein said closure forming cavity has a central blow molding cavity surrounded by a peripheral compression molding cavity.

5. A method according to claim 3, further comprising a step, after said blow molding and compression molding steps, of trimming flash material extending above and below said container body and extending peripherally about said closure such that said container body and closure are separate from one another.

6. A method according to claim 5, wherein said compression molding step forms a hinge connection flap extending integrally from said closure.

7. A method according to claim 6, further comprising the step, after said trimming step, of securing said hinge connection flap to said container body to permit said closure to pivot between open and closed positions relative to said container body.

8. A method according to claim 7, further comprising the step of forming indentations in said container body during said blow molding step of said container

body, said indentations being utilized for securing said hinge connection flap of said closure to said container body.

9. A method according to claim 8, further comprising the step of extending pins during said blow molding step of said container body to form said indentations and retracting said pins from said indentations after said blow molding step to permit said container body to be released from said mold blocks.

10. A method according to claim 2, further comprising the step of ejecting said closure from said mold blocks by extending an ejector plate into said closure forming cavity to force said closure out of said mold blocks.

11. Apparatus for manufacturing a container and associated closure, comprising:

a set of mold blocks moveable from an open position to a closed position to capture an extruded parison therein, and moveable from said closed position to said open position for releasing a container body and closure therefrom;

said mold blocks, when closed, cooperating to form a blow molded container forming cavity and a separate closure forming cavity which includes a blow-molding section and a compression molding section;

a first blow pin extendable into said container forming cavity for forming a blow-molded container body therein; and  
a second blow pin extending into said blow molding section of said closure forming cavity for forming a blow molded portion of the closure, said compression molding section forming a remaining integral compression molded portion of the closure.

12. Apparatus according to claim 11, wherein said mold blocks and first and second blow pins are operable to substantially simultaneously form the blow molded container body and partially blow molded, partially compression molded closure.

13. Apparatus according to claim 12, wherein one of said mold blocks includes an ejector plate which is adjacent said closure forming cavity and which is movable by extendable cylinders for causing the formed closure to be released from said mold blocks.

14. Apparatus according to claim 12, wherein one of said mold blocks includes at least one extendable pin adjacent said container forming cavity, said pin being extendable into said container forming portion for forming undercuts in the blow molded container body and being retractable so that the blow molded container body is releasable from the mold blocks.

15. A combination container and closure prepared by a process comprising the steps of:

extruding a parison within an open set of mold blocks which, when closed, cooperate to form a container forming cavity and a separate closure forming cavity;

closing said mold blocks on said parison such that said parison extends through said container forming cavity and said closure forming cavity of said mold blocks;

blow-molding said parison located in said container forming cavity to form a container body;

separately blow molding a portion of said parison located in said closure forming cavity to form at least a part of a closure; and

compression molding a portion of said parison located in said closure forming cavity to form a remaining part of said closure integral with said blow molded part of said closure;

wherein said blow molding of said container body, said blow molding of said part of said closure, and said compression molding of said remaining part of said closure occur substantially simultaneously.

16. A combination container and lid, said container having an extrusion blow molded body with an upper rim, and said lid comprising:

a hollow central blow molded portion; and

a peripheral compression molded portion extending outwardly and integrally from said hollow central blow molded portion of said lid;

said peripheral compression molded portion of said lid being engageable with said upper rim to secure said lid to said container and said hollow central blow molded portion of said lid reinforcing said lid to increase rigidity and definition and prevent warpage.

17. A combination container and lid according to claim 16, wherein said peripheral compression molded portion of said lid includes a hinge connection flap which is attachable to said container body to permit said lid to pivot between open and closed positions relative to said upper rim of said container.

18. A combination container and lid according to claim 17, wherein said extrusion blow molded container body has a recess adjacent said upper rim for receiving said hinge connection flap.

19. A combination container and lid according to claim 16, wherein said container body is substantially rectangular and said lid snap engages to said container body about said upper rim to seal said container body.